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VERIZON
PATENT MANAGEMENT GROUP
1515 N. COURTHOUSE ROAD
SUITE 500
ARLINGTON, VA 22201-2909

EXAMINER	
BROMELL, ALEXANDRIA Y	

ART UNIT	PAPER NUMBER
2169	

NOTIFICATION DATE	DELIVERY MODE
12/12/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/758,768	NGO ET AL.	
	Examiner	Art Unit	
	Alexandria Y. Bromell	2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Applicant's Amendment, filed 9/10/07. Claims 1-25, which are currently pending, are considered below.

Response to Arguments

Applicant's arguments, filed 9/10/07 with respect to the rejection(s) of claim(s) 1-25 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou et al. (U.S. Patent 6847892) and further in view of Gschwind et al. (U.S. Patent 7032101).

With respect to claim 1, Zhou teaches **storing a first information element in a device log, and storing a second information element in the device log** (i.e. records are stored in device log, column 32, lines 47-57), **and transmitting a first message based on the first information element** (i.e. data is transmitted after it is stored, column 10, lines 53-57). Zhou teaches using this information for truck and fleet tracking (column 66, lines 46-67). Zhou does not explicitly disclose priority levels in the device log. However, Gschwind teaches **determining whether the first information element includes a first priority level indication, storing the first information element in a first data structure when it is determined that the first information element includes the first priority level indication, determining whether the second information element includes a second priority level indication, and storing the second information element in a second data structure when it is determined that the second information element includes the second priority level indication** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and after** dispatching **the first message,** dispatching **a second message based on the second information element, wherein an ordering of transmission is based on the first and second level priority indications** (i.e. information is dispatched for execution based on priority levels of the queues, column 5, lines 19-25). Zhou and Gschwind are analogous art because they are from the same field of endeavor of using queues to store information. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Zhou and Gschwind before him or her,

to modify the system of Zhou to include the method of Gschwind in order to prioritize information in a queue (column 3, lines 39-42). The motivation for doing so would have been to create a fleet management system (Zhou, column 66, lines 46-67), that uses queues to store priority data (Zhou, column 3, lines 39-42). Therefore, it would have been obvious to combine Gschwind with Zhou to obtain the invention as specified in the instant claim(s).

With respect to claim 2, Zhou teaches and **the device log includes a third queue** (i.e. there is a queue in the log, column 21, lines 54-58). Zhou does not explicitly disclose that there are different queues that hold different information based on priority. However, Gschwind teaches **the first data structure includes a first queue, the second data structure includes a second queue** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12) and (i.e. information is put into a first queue, and then a second queue, column 6, lines 46-49). Therefore, the limitations of claim 2 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 3, Zhou teaches a way of remotely monitoring parameters of a device (column 1, lines 41-59). Zhou does not explicitly disclose that the information is stored by priority. However, Gschwind teaches **the first data structure is associated with the first priority level indication and the second data structure is associated with a second priority level indication** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding

priority, column 1, lines 9-12). Therefore, the limitations of claim 3 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 4, Zhou teaches a way of remotely monitoring parameters of a device (column 1, lines 41-59). Zhou does not explicitly disclose determining the priority level of the information and storing it accordingly. However, Gschwind teaches **determining whether a third information element absent from the device log includes a third priority level indication, and storing the third information element in a third data structure when it is determined that the third information element includes the third priority level indication** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and after transmitting the second message, transmitting a third message based on the third information element, wherein the ordering of transmission is further based on the first, second, and third level priority indications** (i.e. information is dispatched for execution based on priority levels of the queues, column 5, lines 19-25). Therefore, the limitations of claim 4 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 5, Zhou teaches **storing a fourth information element in the device log** (i.e. records are stored in device log, column 32, lines 41-57), Zhou does not explicitly disclose determining the priority level of the information and storing it accordingly. However, Gschwind teaches **determining whether the fourth information element includes the first priority level indication, and determining whether the first data structure includes storage available for storing the fourth**

information element when it is determined that the fourth information element includes the first priority level indication (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and discarding the fourth information element from consideration of storage in the first data structure when the step of determining whether the first data structure includes storage available determines that storage for storing the fourth information element is unavailable in the first data structure** (i.e. if system determines that information will stall operation, the information is purged, column 6, lines 20-26). Therefore, the limitations of claim 5 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 6, Zhou teaches **the device log is stored in a flash memory included in the tracked telemetry device** (i.e. device log is flash memory in device, column 26, line 63). Zhou does not explicitly disclose that the data structure is stored in dynamic memory. However, Gschwind teaches **the first data structure and the second data structure are stored in a dynamic memory included in the tracked telemetry device** (i.e. queues are stored in memory that is dynamic, with instructions, column 6, lines 9-11, and column 6, lines 46-49), Therefore, the limitations of claim 6 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 7, Zhou teaches **receiving a request for data of the tracked telemetry device, and transmitting a data message based on content of the device log in response to the request** (i.e. device receives a request for

information, and device returns requested information, column 26, lines 49-67), and (i.e. used for truck and fleet tracking, column 66, lines 48-67).

With respect to claim 8, Zhou teaches **a device log including a first information element and a second information element** (i.e. records are stored in device log, column 32, lines 41-57), to transmit a first message based on the first information element (i.e. data is transmitted after it is stored, column 10, lines 53-57). Zhou does not explicitly disclose priority levels in the device log. However, Gschwind teaches **a first data structure, other than the device log, including the first information element which includes a first priority level indication, a second data structure, other than the device log, including the second information element which includes a second priority level indication** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and a processor configured to determine whether the first information element includes a first priority level indication, to determine whether the second information element includes a second priority level indication** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and after transmitting the first message, to transmit a second message based on the second information element, wherein an ordering of transmission is based on the first and second level priority indications** (i.e. information is dispatched for execution based on priority levels of the queues, column 5, lines 19-25). Zhou and Gschwind are analogous art because they are from the same field of endeavor of using queues to

store information. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Zhou and Gschwind before him or her, to modify the system of Zhou to include the method of Gschwind in order to prioritize information in a queue (column 3, lines 39-42). The motivation for doing so would have been to create a fleet management system (Zhou, column 66, lines 46-67), that uses queues to store priority data (Zhou, column 3, lines 39-42). Therefore, it would have been obvious to combine Gschwind with Zhou to obtain the invention as specified in the instant claim(s).

With respect to claim 9, Zhou teaches the **device log includes a third queue** (i.e. there is a queue in the log, column 21, lines 54-58). Zhou does not explicitly disclose that there are different queues that hold different information based on priority. However, Gschwind teaches **the first data structure includes a first queue, the second data structure includes a second queue** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12) and (i.e. information is put into a first queue, and then a second queue, column 6, lines 46-49). Therefore, the limitations of claim 9 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

With respect to claim 10, Zhou teaches a way of remotely monitoring parameters of a device (column 1, lines 41-59). Zhou does not explicitly disclose that the information is stored by priority. However, Gschwind teaches **the first data structure is associated with the first priority level indication and the second data structure is associated with a second priority level indication** (i.e. system classifies which

information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12). Therefore, the limitations of claim 10 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

With respect to claim 11, Zhou teaches a way of remotely monitoring parameters of a device (column 1, lines 41-59). Zhou does not explicitly disclose determining the priority level of the information and storing it accordingly. However, Gschwind teaches **the processor is further configured to determine whether a third information element absent from the device log includes a third priority level indication, to store the third information element in a third data structure when it is determined that the third information element includes the third priority level indication** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and after transmitting the second message, to transmit a third message based on the third information element, wherein the ordering of transmission is further based on the first, second, and third level priority indications** (i.e. information is dispatched for execution based on priority levels of the queues, column 5, lines 19-25). Therefore, the limitations of claim 11 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

With respect to claim 12, Zhou teaches **the device log includes a fourth information element** (i.e. records are stored in device log, column 32, lines 41-57). Zhou does not explicitly disclose determining the priority level of the information and storing it accordingly. However, Gschwind teaches **the processor is further**

configured to determine whether the fourth information element includes the first priority level indication to determine whether the first data structure includes storage available for storing the fourth information element when it is determined that the fourth information element includes the first priority level indication (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and to discard the fourth information element from consideration of storage in the first data structure when the determination of whether the first data structure includes storage available determines that storage for storing the fourth information element is unavailable in the first data structure** (i.e. if system determines that information will stall operation, the information is purged, column 6, lines 20-26). Therefore, the limitations of claim 12 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

With respect to claim 13, Zhou teaches **a flash memory including the device log** (i.e. device log is flash memory in device, column 26, line 63). Zhou does not explicitly disclose that the data structure is stored in dynamic memory. However, Gschwind teaches **a dynamic memory including the first data structure and the second data structure** (i.e. queues are stored in memory that is dynamic, with instructions, column 6, lines 9-11, and column 6, lines 46-49), Therefore, the limitations of claim 13 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

With respect to claim 14, Zhou teaches **the processor is further configured to receive a request for data of the tracked telemetry device, and to transmit a data**

message based on content of the device log (i.e. device receives a request for information, and device returns requested information, column 26, lines 49-67), and (i.e. used for truck and fleet tracking, column 66, lines 48-67).

With respect to claim 15, Zhou teaches **storing a first information element in a device log, and storing a second information element in the device log,** (i.e. records are stored in device log, column 32, lines 41-57), and transmitting a first message based on the first information element (i.e. data is transmitted after it is stored, column 10, lines 53-57). Zhou does not explicitly disclose priority levels in the device log. However, Gschwind teaches **determining whether the first information element includes a first priority level indication, and storing the first information element in a first data structure when it is determined that the first information element includes the first priority level indication, and determining whether the second information element includes a second priority level indication, and storing the second information element in a second data structure when it is determined that the second information element includes the second priority level indication,** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and after transmitting the first message, transmitting a second message based on the second information element, wherein an ordering of transmission is based on the first and second level priority indications** (i.e. information is dispatched for execution based on priority levels of the queues, column 5, lines 19-25). Zhou and Gschwind are analogous art because they are from the same field of endeavor of using queues to store information.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Zhou and Gschwind before him or her, to modify the system of Zhou to include the method of Gschwind in order to prioritize information in a queue (column 3, lines 39-42). The motivation for doing so would have been to create a fleet management system (Zhou, column 66, lines 46-67), that uses queues to store priority data (Zhou, column 3, lines 39-42). Therefore, it would have been obvious to combine Gschwind with Zhou to obtain the invention as specified in the instant claim(s).

With respect to claim 16, Zhou teaches **the device log includes a third queue** (i.e. there is a queue in the log, column 21, lines 54-58). Zhou does not explicitly disclose that there are different queues that hold different information based on priority. However, Gschwind teaches **the first data structure includes a first queue, the second data structure includes a second queue** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12) and (i.e. information is put into a first queue, and then a second queue, column 6, lines 46-49), Therefore, the limitations of claim 16 are rejected in the analysis of claim 16 above, and the claim is rejected on that basis.

With respect to claim 17, Zhou teaches a way of remotely monitoring parameters of a device (column 1, lines 41-59). Zhou does not explicitly disclose that the information is stored by priority. However, Gschwind teaches **the first data structure is associated with the first priority level indication and the second data structure is associated with a second priority level indication** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding

priority, column 1, lines 9-12). Therefore, the limitations of claim 17 are rejected in the analysis of claim 15 above, and the claim is rejected on that basis.

With respect to claim 18, Zhou teaches a way of remotely monitoring parameters of a device (column 1, lines 41-59). Zhou does not explicitly disclose determining the priority level of the information and storing it accordingly. However, Gschwind teaches **determining whether a third information element absent from the device log includes a third priority level indication, and storing the third information element in a third data structure when it is determined that the third information element includes the third priority level indication** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and after transmitting the second message, transmitting a third message based on the third information element, wherein the ordering of transmission is further based on the first, second, and third level priority indications** (i.e. information is dispatched for execution based on priority levels of the queues, column 5, lines 19-25). Therefore, the limitations of claim 17 are rejected in the analysis of claim 15 above, and the claim is rejected on that basis.

With respect to claim 19, Zhou teaches **storing a fourth information element in the device log** (i.e. records are stored in device log, column 32, lines 41-57). Zhou does not explicitly disclose determining the priority level of the information and storing it accordingly. However, Gschwind teaches **determining whether the fourth information element includes the first priority level indication, and determining whether the first data structure includes storage available for storing the fourth**

information element when it is determined that the fourth information element includes the first priority level indication (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and discarding the fourth information element from consideration of storage in the first data Structure when the step of determining whether the first data structure includes storage available determines that storage for storing the fourth information element is unavailable in the first data structure** (i.e. if system determines that information will stall operation, the information is purged, column 6, lines 20-26). Therefore, the limitations of claim 19 are rejected in the analysis of claim 15 above, and the claim is rejected on that basis.

With respect to claim 20, Zhou teaches **the device log is stored in a flash memory included in the tracked telemetry device** (i.e. device log is flash memory in device, column 26, line 63). Zhou does not explicitly disclose that the data structure is stored in dynamic memory. However, Gschwind teaches **the first data structure and the second data structure are stored in a dynamic memory included in the tracked telemetry device** (i.e. queues are stored in memory that is dynamic, with instructions, column 6, lines 9-11, and column 6, lines 46-49). Therefore, the limitations of claim 19 are rejected in the analysis of claim 15 above, and the claim is rejected on that basis.

With respect to claim 21, Zhou teaches **receiving a request for data of the tracked telemetry device, and transmitting a data message based on content of the device log in response to the request** (i.e. device receives a request for

information, and device returns requested information, column 26, lines 49-67), and (i.e. used for truck and fleet tracking, column 66, lines 48-67).

With respect to claim 22, Zhou teaches **storing a plurality of information elements in a device log** (i.e. records are stored in device log, column 32, lines 41-57), and transmitting a message including one of the information elements of the selected one of the data structures (i.e. data is transmitted after it is stored, column 10, lines 53-57). Zhou does not explicitly disclose storing information based on priority. However, Gschwind teaches **selectively storing each of a group of the plurality of information elements in one of a plurality of data structures based on a priority indicator associated with each one of the information elements of the group** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and selecting one of the plurality of data structures based on one of the priority indicators** (i.e. information is dispatched for execution based on priority levels of the queues, column 5, lines 19-25). Zhou and Gschwind are analogous art because they are from the same field of endeavor of using queues to store information. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Zhou and Gschwind before him or her, to modify the system of Zhou to include the method of Gschwind in order to prioritize information in a queue (column 3, lines 39-42). The motivation for doing so would have been to create a fleet management system (Zhou, column 66, lines 46-67), that uses queues to store priority data (Zhou, column 3, lines

39-42). Therefore, it would have been obvious to combine Gschwind with Zhou to obtain the invention as specified in the instant claim(s).

With respect to claim 23, Zhou teaches **storing the plurality of data structures in a memory including the device log, when an external power source of the telemetry device fails** (i.e. data is stored in memory by the ASP, so it will not be lost if power source of telemetry device fails, column 57, line 49 – column 58, line 9).

With respect to claim 24, Zhou teaches **means for storing a plurality of information elements in a device log** (i.e. records are stored in device log, column 32, lines 41-57), **and means for transmitting a message including one of the information elements of the selected one of the data structures** (i.e. data is transmitted after it is stored, column 10, lines 53-57). Zhou does not explicitly disclose storing information based on priority. However, Gschwind teaches **means for selectively storing a group of each of the plurality of information elements in one of a plurality of data structures based on a priority indicator associated with each one of the information elements** (i.e. system classifies which information has which priority level, and stores information in a queue of corresponding priority, column 1, lines 9-12), **and means for selecting one of the plurality of data structures based on one of the priority indicators** (i.e. information is dispatched for execution based on priority levels of the queues, column 5, lines 19-25). Zhou and Gschwind are analogous art because they are from the same field of endeavor of using queues to store information. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Zhou and Gschwind before him or her, to modify

the system of Zhou to include the method of Gschwind in order to prioritize information in a queue (column 3, lines 39-42). The motivation for doing so would have been to create a fleet management system (Zhou, column 66, lines 46-67), that uses queues to store priority data (Zhou, column 3, lines 39-42). Therefore, it would have been obvious to combine Gschwind with Zhou to obtain the invention as specified in the instant claim(s).

With respect to claim 25, Zhou teaches **means for storing the plurality of data structures in a memory including the device log, when an external power source of the telemetry device fails** (i.e. data is stored in memory by the ASP, so it will not be lost if power source of telemetry device fails, column 57, line 49 – column 58, line 9).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandria Y. Bromell whose telephone number is 571-270-3034. The examiner can normally be reached on M-R 6:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ali can be reached on 571-272-4105. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alexandria Y Bromell
Examiner
Art Unit 2169

AYB
TC 2100

MOHAMMAD ALI
SUPERVISORY PATENT EXAMINER